
WII DATA SHARING POLICY

Guidelines on Scientific data ownership, sharing, archiving and retrieval



May 2024

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Introduction

The Wildlife Institute of India (WII) is one of the country's premier training and research institute in the field of wildlife science and conservation. The institute was set up in 1982 with a mandate to train government and non-government personnel, carry out research, and advise on matters of conservation and management of wildlife resources. WII's research projects are being conducted in field sites across the length and breadth of the country and are the primary sources of scientific information to help conservation.

Aims and objectives of the institute are:

- Build up scientific knowledge on wildlife resources.
- Train personnel at various levels for conservation and management of wildlife.
- Carry out research relevant to management including the development of techniques appropriate to Indian conditions.
- Provide information and advice on specific wildlife management problems.
- Collaborate with international organizations on wildlife research, management and training.
- Develop as a regional center of international importance on wildlife and natural resource conservation.

The major activities of WII are education, research and capacity building in biodiversity conservation. Wildlife research is a major activity of WII that supports field conservation by aiming improve our understanding of biological, ecological, socio-economic and management aspects of protected areas, multiple use/buffer zones and threatened species. The Institute undertakes research relevant to various aspects of wildlife science and contributes significantly towards the development of baseline information, ecological relationships, and strategies relevant to management, mitigation and monitoring. Research outcomes are disseminated in the form of national and international peer reviewed articles, books, Ph.D. theses, dissertations, research/technical reports, field manuals, etc.

WII is committed to the conservation and protection of India's diverse wildlife and their habitats. As part of this mission, the faculty and the researcher community execute diverse activities including the conduct of research, publication of articles, administration of science and interfacing with the public and press to advance scientific research, conservation efforts, and public awareness. As all the projects are implemented through public funds (through central or state governments), WII as an institute recognises the importance of data sharing (both primary information as well as journal articles, theses, final reports etc.). However, it has been observed that a large quantum of data generated using public funds by WII researchers remain inaccessible to the larger researcher community outside WII as well as to other research teams within the institute. Significant portion of this data may be non-sensitive in nature and could be used by other researchers for forwarding the cause of conservation and capacity building in the country. Lack of data disclosure and transparency often lead to duplication of efforts and loss of efficiency of project planning and execution.

Some of the major benefits of data/sample sharing with the larger community include:

- **Equity of Access:** A more open data sharing policy ensures better access to bonafide users.
- **Maximising use:** Ready access to available scientific data will enable more extensive use of a valuable public resource for the benefit of the wildlife and stakeholders.
- **Avoiding duplication:** By sharing data the need for separate bodies to collect the same data will be avoided resulting in significant cost savings.
- **Better decision-making:** Ready access to existing valuable data is essential for many decision-making tasks such as environment assessment, conservation planning, managing landscapes and making science-backed conservation recommendations.
- **Ownership:** Sharing the data with WII provides information regarding those responsible for data collection and helps in enforcing accountability.

However, it is also important to remember that such data sharing process is complex and entails careful consideration of academic & research ethics and the principles of integrity, honesty, and fairness of the system. Therefore, a clear institutional policy is required to deal with such complexities following available national and international rules and regulations. This document attempts to point out desirable and necessary rules/practises and highlights how they can be implemented at WII on data sharing, archiving and retrieval. This policy is applicable to all sharable data and publication available either in digital or hard-bound forms but generated using public funds by various research groups at WII. It is important to understand that this document should be taken as a general guideline towards dealing with data sharing/management policy. It could undergo revisions in the future, depending on the requirements of the institute.

Scope

This policy document outlines WII's approach to data sharing, archiving and retrieval while taking cognizance of issues of data quality, accountability, data privacy, security, legal conformity, and professionalism. It covers the aspects of sharing of data within WII and between WII and third parties (external agencies such as State Forest Departments, Funding agencies, MoEF&CC, collaborating Institutions, other universities, researchers etc.). This policy also mandates creating an institutional repository which will be hosted at WII library and will act as one source to access all data and publication pertaining to WII projects. This policy is applicable to every researcher – temporary or permanent, affiliated to WII in any capacity, including visiting scholars, PhD and project students, summer interns and field assistants.

Types of Data and Publications

Data means a representation of information, numerical compilations and observations, documents, facts, maps, images, charts, tables and figures, concepts in digital and/or analog

form. Throughout the document, unless stated specifically, the word 'data' would be inclusive of following types of data –

'Raw data' means primary data collected from a source and not been modified or changed. For example, data coming out from a sequencing machine, Ecological surveys and field observations.

'Processed data' means the raw data that has been revised to derive certain relevant information. This includes tables and figures.

'Biological data' means All specimens of biological nature e.g., blood and tissue samples collected during field visits and their derivatives (DNA, RNA, proteins).

'Geographic Information System (GIS) data' means all data which is geographically referenced. It includes, remotely sensed data, maps and species distribution models.

'Metadata' includes information that describes the data source and the time, place, and conditions under which the data were created. It informs the user of who, when, what, where, why, and how data were generated. Metadata allows the data to be traced to a known origin and know quality.

'Publications' include all published journal articles (peer-reviewed), Technical manuals, Books and book chapters, all reports submitted to funding agencies and state forest departments, PhD and Masters Theses.

Data Sharing Principles

Open Access: WII is committed to responsible data sharing and open access to publications authored by its faculties/researchers/students/trainees. All data resulting from WII projects and publications authored by WII research personnel must be made available. Such data and publications will be shared with researchers outside WII taking into consideration existing copyright issues, agreements with third parties and compromise the safety of wildlife, habitats, or local communities.

There are various ways to implement such plans. For example:

- a) **Scientific publications:** Almost all faculty and researchers publish their results regularly in peer-reviewed national/international journals. These are useful resources that should be made available to everyone. Majority of the open-access publications require to submit their metadata that are made available to the scientific community free of cost. However, for publications under subscription scheme the manuscripts are generally under embargo for certain period of time (12-36 months depending on the publishers). In this scenario, the publications should be provided to the library who can send the same to interested readers (based on request), but they shouldn't be made open access at any cost as the institute can potentially face legal actions from the publishers.
- b) **Reports:** All reports should be made available at the WII library and can be sent to interested readers based on request. However, it should be ensured that the contents

should be used in a fair manner following academic ethical practices. A form needs to be prepared accordingly for undertaking from the applicants.

Custodianship of data: All researcher/student/trainees are informed that any data collected as part of any project associated with WII belongs to the respective project and WII and not personal in nature. They can only use this data for their academic pursuits after approval from their respective project PI and competent authorities (if required). Any deviation from this will require approval from Director, WII.

WII shall retain custodianship of all the samples and data collected by its researchers (Scientists, Project staff, PhDs, Postdocs, students and Interns) or research done at WII irrespective of the affiliation of researcher (e.g., research done by visiting scholars and students, officers on deputation) unless bound by existing MoU/MoA/Agreements where data ownership is clearly mentioned.

Data Privacy: Personal information and sensitive data about individuals, including local communities, will be anonymized and protected. Any such data/information can be shared after approval from Dean, FWS and Director, WII through proper channel.

Data will be shared with the understanding that users will adhere to ethical and legal standards. User shall acknowledge WII and the list of researchers mentioned in the metadata in all forms of publications.

Dispute Settlement: All the disputes arising out of this policy between parties, Sections, Individuals, Institutions etc. will be settled through mutual discussion and consensus. The Institute's ethics committee can take up complaints regarding any ethical dispute of data use.

WII Researchers must ensure to submit the project data (both raw and processed) to their respective PI in a periodic manner. It should be the responsibility of the PI to ensure that personnel leaving WII upon completion of their term have submitted all the data in hard bound (if available) and soft-copy (compulsory).

Type of Access: All the data deposited to WII will be 'Registered Access' i.e., researchers wanting to retrieve archived data have to register at the website and provide proper justification of how they intend to use the archived data. Data can be classified as one of the following three by the data submitter i.e., PI –

- a) 'Restricted' – only the title will be made available on the website. Data request submitted by the registered users will be periodically reviewed by the WII Data Policy (WDP) committee. The committee may decide whether to deny the request, or make the data available in full or some parts of it.
- b) 'Semi-restricted' – only the title, researchers' name and affiliation and abstract will be made available to the registered users. Such data can be downloaded by registering on the website.
- c) 'Open Access' – entire report, thesis or data may be made available to the registered users. Such data can be downloaded by registering on the website.

Critical aspects of data sharing policy

Within WII the established cells, individual faculty members currently retain very large amount of data (primary as well as secondary), sample repositories, publications, reports and other materials that are of critical importance. Most if not all of these have been generated through public funding support through various projects (in case of samples collected through projects or provided by various sister agencies/clients) and therefore certain rules need to be followed to ensure proper sharing/disbursement of data/samples. Below are some of the critical rules pertaining to this:

Data sharing/submission:

1) *Primary data/information:*

1.1 Project data: All data generated through any particular research project primarily belong to the PI of the project, and therefore the data sharing should be the responsibility of the PI. The PI should ensure that any publication/report coming out of the project should be made available to the library, who will take the responsibility as mentioned before (see Data sharing principles). The PI can share the primary data anytime with WII / external collaborators as per the need, but care should be taken that a formal communication is established beforehand to resolve any possible conflict of interest arising in future.

For all collaborative projects between WII and State Forest Departments, WII will make all data generated through the project (raw/processed data) available to the State authorities on request. The requested data will be made available to the state within 30 days by the respective PI. Further data sharing with any other parties should be implemented through mutual consents.

Once the project is over, the data should be made available to others after a period of **5 years**. A specific format for the same will be prepared by the WII Data Policy (WDP) committee. Data will be shared with the understanding that users will adhere to ethical and legal standards. For any issues regarding this the WDP and the Academic Ethics Committee will be consulted to resolutions. User shall acknowledge WII and the list of researchers mentioned in the metadata in all forms of publications. Necessary approvals may kindly be taken from competent authorities, as required. However, formal request for data/information from any of the WII sister institutes/MoEF&CC for specific use need to be respected and necessary data should be provided to them. The request should be made through proper channel.

1.2 Data available in various cells: A number of cells at WII (for e.g., Tiger Cell, Elephant Cell, Forensic Cell etc.) also have generated very large amount of data/information through long-term projects. As all of these projects are government-funded the information comes under the general data sharing purview. However, some of these information (for example, camera trap pictures, location, case reports etc.) are of sensitive nature and therefore should be carefully considered before shared openly. A more practical mechanism would be to create an appropriate form with details of

the data required with academic justifications to request specific information from respective cells. The form can be submitted through proper channel to receive the data/information and a decision regarding the request will be made within **two weeks' time**.

- 2) **Samples:** WII is recognised by National Biodiversity Authority as a national repository for biological samples of endangered species from protected areas. Very large numbers of samples are being collected as part of projects implemented by WII colleagues and are being stored by the PIs. Historically, faculty members used to submit these samples to the Forensic cell repository but later issues were raised regarding the ownership and use of such samples. The Wildlife Forensic and Conservation Genetics Cell and Wildlife Health Laboratory also has collected/received a large number of biological samples (DNA sources) from different sources. Taken together, such institutional facilities should implement a standard mechanism to receive and use of these samples for scientific use. Following protocol can be followed:

2.1 Online WII repository of biological samples: An online sample repository should be developed at WII with all details of samples collected/available. The details of the samples (species, type of samples, collection date, permission details, Project detail, number of samples etc.) should be made available. All faculty members of WII should have access to this online repository where they can add their project samples. The NO/ANO of Wildlife Forensic and Conservation Genetics Cell should ensure all repository sample details are made available to all. This will ensure transparency in details of the available samples at WII.

2.2 Samples collected by WII projects: The samples collected by respective projects should have ownership of the samples and the PI has the power to decide the use of them for any scientific use. However, after the project is completed, the samples should be made available to all after a period of **5 years**. For completed projects, the PI should submit the samples to the Wildlife Forensic and Conservation Genetics Cell (WFCGC) and he/she should be acknowledged by the user of the samples for any scientific purpose.

2.2 Samples available in WFCGC: All WII PI should have access to the WFCGC repository samples. An online 'Biological sample use' form should be made available in the Intranet where WII faculty members can apply for specific sample available in the online repository stating the purpose of research use. All application requests will be assessed by the WDP who will forward the request to the NO/ANO, WFCGC. The sample transfer request will be approved by the competent authority. If any request for completed project sample is received then the concerned PI's consent will be taken to use such samples. The whole process needs to be completed within **two weeks' time** and sample will be made available to the users.

All external requests need to be submitted to the Dean, FWS and Director, WII who will assess the request and approve such use case by case basis.

3) GIS/ Spatial data: All primary/secondary GIS/Spatial data available with IT, RS/GIS Cell or other cells should be made freely available to WII PIs. An online 'GIS data request' form should be made available in the Intranet where WII faculty members can apply for specific information available in the online repository stating the purpose of research use. All application requests will be assessed by the NO/ANO, IT/RS/ GIS Cell or other Cells and approved by the competent authority. The whole process needs to be completed within **two weeks' time** and data will be made available to the users.

Responsibilities

Wildlife Institute of India	<ul style="list-style-type: none"> • WII is the data 'owner' and is ultimately responsible for enforcing the WII Data policy (WDP). • WII will provide safe, secure and sustainable facilities and appropriate infrastructure for the physical and digital storage of Research Records and Data. • WII will maintain a register of research Datasets relating to research projects and make the list of data and publications available on the website. • Data sharing will be facilitated through a designated 'WDP committee' appointed by the Director and agreed up on by Registrar and Dean. • WII will hire a personnel to digitize old WII reports, and compile research publications authored by retired faculties and previous researchers.
Principal Investigators	<ul style="list-style-type: none"> • PIs must ensure that their team is aware of the WII Data policy. • PIs are expected that they will publish their research in high quality, peer-reviewed journals as well as will prepare project completion report for the funding agencies. • PIs must archive the relevant data and publications with metadata at WII repository.
Senior Researchers (RAs, Postdocs, visiting faculties, Deputed officers), Project and PhD students, visiting students and officers, Interns and Trainees, Third Party Institutions and Partner Institutions	<ul style="list-style-type: none"> • They must familiarise themselves with WII data policy prior to undertaking research. • They must keep clear and accurate records of their research methods and Research Data and Primary Material sources and relevant metadata records. • They must deposit the Lab records, Notes, Protocols and Data to the PI before terminating their position at WII.

Exceptions

Following items shall be exempted from this policy. These items need not be stored at WII repository and will not be made accessible to researchers outside WII. Researchers within WII may be provided access to following items based on the discretion of Director, WII.

- a) Forensic reports
- b) Location details of sensitive-species (those under the threat of extinction, poaching, or illegal wildlife trade)

- c) Original camera-trap images
- d) Radio-telemetry data

References

- a) National Data Sharing and Accessibility Policy 2012, published vide the Gazette of India, March 17, 2012 (Phalguna 27, 1933) Ministry of Science and Technology (DST), Government of India
- b) DBT and DST Open Access Policy, 2014, Ministry of Science and Technology, Government of India.